Every Model Needs:

* Props
  + Grid width/height
  + # of Agent(s)
    - Based on INT
    - Based on Density
    - ???(Add)
* Props (Varies)
  + Agent Speed
  + ???(Add)
* Agent
  + Action (varies)
    - Reproduction rate
    - Life span
    - Life bar (how many times you get hit before you die)
    - Agent state (ex. Alive, Dead, Dying, Sick, etc.)

(Composite)

* + Needs color, (something to differentiate)
  + Needs Max/Min # of type
  + Needs default # of type
  + Function that creates it (within python)
* Env
  + Max/Min Width and Height
  + Default width/height
  + Type(s) of Agent(s)
  + Props for the model

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

When Pressing the “Create New Model”:

>Create a new blank **“model name”.props.json** named after the model

When Adding env to the editor page:

>adds the grid width and height to the “model name”.props.json, along with the **max** width and height specified by the user.

>By default, the “val” is equal to the median between lowval and hival. This can be changed manually by the user in an “edit env” menu

>Python will know to use the indra.env script

Ex.(just like in any other props.json file)

{

"grid\_height": {

"val": 50,

"question": "What is the grid height?",

"atype": "INT",

"hival": 100,

"lowval": 0

},

"grid\_width": {

"val": 20,

"question": "What is the grid width?",

"atype": "INT",

"hival": 100,

"lowval": 2

}

}

When Adding a new agent to the env:

> adds a prop called “agent name” along with the default number of the type specified by the user to the “model name”.props.json

Ex. (Just like in any other json file)

{

"AgentA": {

"val": 2,

"question": "How many Agent do you want?",

"atype": "INT",

"hival": 100,

"lowval": 1

},

}

>Python will know to use the indra.agent script

When Adding an action to an agent:

**>**Create json file: **“agent name”\_actions.json**

**>**this only happens if the file doesn’t exist already after adding a trig zone

>Depending on the action it will have, a new entry will be added to the agent action json file

Ex.(Inside AgentA\_actions.json)

{

“Move Towards Agent B” :{

“Action Type”: Movement //This determines the function of the action

“Has Trig Zone”: false // no triggerZone connected w/ action, else true

“Trig Distance”: 0 //since there’s no trig zone, value is 0

}

}

When Adding a Trigger zone to an agent:

**>**Create json file: **“agent name”\_actions.json**

**>**this only happens if the user decides to add the trig zone before an action, and one doesn’t exist already

**>**it will remain blank until an action is added to the agent

**>**Python will know to use the indra.space script for that action

When associating a Trigger zone to an action:

>the hasTrig and Trig Distance values will change for the action a trigger is attached to

Ex.(Inside AgentA\_actions.json)

{

“Move Towards Agent B” :{

“Action Type”: Movement //This determines the function of the action

“Has Trig Zone”: **true**

“Trig Distance”: **10**

}

}